

TYPES OF SPECIES OF AUSTRALASIAN POLYPLACOPHORA
DESCRIBED BY DE BLAINVILLE, LAMARCK, DE ROCH-
BRUNE, AND OTHERS, NOW IN THE MUSEUM D'HISTOIRE
NATURELLE, IN PARIS.

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[Read October 19, 1922.]

The following is a *resumé* of the results of an examination recently made by the writer of the collections of Australasian *Polyplacophora* under the care of the Laboratoire de Malacologie Rue de Buffon, Paris.

The writer's warmest thanks are due to Professor Joubin for permission to examine the collections, and to Dr. Ed. Lamy, for not only placing the extensive collections at his disposal, but also for much help in the identification of the specimens from which Blainville and other writers made their original descriptions.

In offering the within notes on these collections, the writer is conscious of limitations due to the shortness of the time at his disposal entirely precluding the possibility of checking through his rough notes before transcribing them.

The fortunate rediscovery of some of the lost types, notably of Blainville and Lamarck, on which so much has been written by Dr. Pilsbry, Mr. Tom Iredale, and others, will, I feel sure, be appreciated by all workers.

Fairly full notes have been given of a good deal of material of less importance than the types before referred to. This has been done because the writer had an unique opportunity of comparing the specimens with those of his own collection which he brought to Europe for this purpose, and which is undoubtedly the most complete collection of Australian chitons that has up to the present been made. The references given are not complete, but sufficiently so for the purposes of this paper. As far as possible the notes have been arranged in the order of modern classification.

Callochiton dentatus, Spengl., Australe. One specimen on card. On the back is marked "*fulgetrum*, Reeve." It is very worn, but I have no doubt it is *C. platessa*, Gould.

Lepidopleurus fodiatus, Rochebr. Type (Bull. Soc. Philom., 1880-81, p. 120). The card on which these shells are mounted is marked "*Is. (Radsella) fodiatus*, Rochebr." Also, there are several separate valves in spirit marked on label "*Is. tigrinus*, Kraus." Other notes on the label, "New Holland, M. Verreaux, 1842. Type, M^s 108."

This shell has very large scales grooved with very fine striae. Lateral area 11 radial ribs, median areas covered with flattened, wavy ribs which are so extremely bridged as to approximate to the sculpture of a *Callistochiton*.

I have never seen this shell in Australia and am confident the locality given is incorrect.

Stenochiton (Chiton) longicymba, Blainville. Type (Dict. Sc. Nat., xxxvi., 1825); *Stenochiton juloides*, Ad. and Ang.; *Schizochiton nympha*, Rochebr., non *Chiton longicymba*, Bl., of Quoy et Gaimard.

The full particulars of the steps that led to the identification of Rochebrune's type of *Schizochiton nympha* with Blainville's lost type of *C. longicymba* are fully given in a paper by the writer which is being published by the Malacological Society, London.

Ischnochiton (Chiton) lineolatus, Blainville. Type (Dict. Sc. Nat., vol. xxxvi., p. 541, 1825). See "Review of *Chiton crispus*, Reeve, by Ashby (Trans. Roy. Soc. S. Austr., vol. xlv., 1920, pp. 272-275); non *lineolatus*, Blain., of Iredale and May; *haddonii*, of Pilsbry; *I. crispus*, Reeve, of Bednall, Torr. In my paper (*l.c.*) I recognized Blainville's *Chiton lineolatus* in the shell we had known as *I. crispus*, Reeve, common to South Australia, Victoria, and Tasmania; and later, I received from Major Paul Dupuis, of Brussels, co-types of Blainville's *lineolatus*, collected by Peron et Lesueur in King Island, one of the specimens being marked inside "Ile King." This confirmed my previous conclusions. Of the two specimens mounted on the card marked "Type Peron et Lesueur, Ile King," the larger shell is smooth and shiny, has no radial ribbing, but shows near the insertion plates, broken, shallow, concentric ribbing. The dorsal area is almost smooth and polished, the fine decussation, although present, is inconspicuous. The lateral and median areas are much less coarse in sculpture than is the case with *Ischnochiton iredalei*, Dupuis, which is the shell that Iredale had concluded was Blainville's *lineolatus*; the jugum in the type is not so rounded as in the latter species, but shows a fairly sharp angle and also a single flame mark bordering the dorsal area. Except the flame mark the type corresponds with the shell given me by Major Dupuis before referred to. In the second and smaller specimen on the card, the radial ribbing is present on the anterior and posterior valves and in the lateral areas of the median valves; altogether the sculpture is much stronger than is the case with the larger specimen. While this sculpture approaches *I. iredalei*, Dupuis, the marked jugal ridge separates it from that species, and the

sculpture of this area is less strong than on that species. The girdle, while showing stains, is certainly a pale girdle.

There are on three other cards marked "Peron et Lesueur, Ile King," one, two, and three specimens, respectively. In all the sculpture is coarser than is the case with the larger one on the card marked "type." While it is possible that some of them may be juvenile specimens of *Heterozona sub-viridis*, Ire. and May, I could not distinguish any pointed large scales that are so characteristic of that species.

In conclusion:—This investigation determines the facts that (1) Iredale was wrong in identifying the shell we used to know as *Ischnochiton contractus*, Rv., and now known as *I. iredalei*, Dup., with Blainville's *Chiton lineolatus*. (2) The larger specimen on the type card, which I accept as the type, is undoubtedly the shell we used to know as *I. crispus*, Rv. (3) While it is possible that some of the specimens brought from King Island by Peron and Lesueur, and mounted on the separate cards may be juvenile forms of *H. sub-viridis*, Ire. and May, their present condition makes accurate determination difficult.

Ischnochiton (Lepidopleurus) campbelli, Filhol. Type (Comptes Rendus, xci., p. 1095, 1880). Iredale in Trans. N. Z'd. Inst., vol. xlvii., 1914, p. 419. The type is from Campbell Island and is a half-grown specimen similar to one of the same size in my own collection.

Ischnochiton melanterus, Rochebrune. Type (Bull. Soc. Philom., Paris, 1883-84, p. 137), from Campbell Island. This is conspecific with the preceding species.

Ischnochiton (Chiton) tessellatus, Quoy et Gaimard. Type (Voy. de l'Astrol. Zool., iii., p. 396; Atlas, t. 75, f. 43-47). This specimen is mounted on a card and marked "Il des Kangaroo," but in Pilsbry the locality is given Port Carteret, New Ireland. On the back of the card there is the note, "*C. cymbium*, Dufrizai. M.S.S." This shell has girdle scales that are large, bead-like, polished, and almost smooth at apex; elsewhere very finely striated. Anterior and posterior valves and lateral areas of median valves show strong, slightly broken, radial ribs 5 or 6 in number. The median areas closely packed with narrow, well-defined, wavy, longitudinal ribs, curiously pectinated. I have never seen this shell in Australia.

Ischnochiton (Chiton) sulcatus, Quoy et Gaimard. Type (Voy. de l'Astrol., iii., p. 385, t. 75, f. 31-36). The card is marked "*Gymnoplax urvillei*, Rochebrune"; also "M. M., Quoy et Gaimard. Type, from Port du Roi George." It is a strongly-marked specimen of the shell we now know as

I. contractus, Rv. The synonymy is given by Iredale and May (Proc. Mal. Soc., vol. xii., pts. ii. and iii., Nov., 1916) as follows:—*I. contractus*, Rv., 1847; *C. sulcatus*, Quoy et Gaim., 1834, non Wood, 1815; *C. decussatus*, Rv., 1847; *C. castus*, Rv., 1847; *Lepidopleurus speciosus*, Ad. and Ang., 1864; *Gymnoplax urvillei*, Rochebr., 1881.

Plaxiphora (Chiton) biramosa, Quoy et Gaim., 1833. Type, New Zealand (Voy. de l'Astrol., iii., p. 378, pl. 74, figs. 12-16). This specimen is very badly eroded, showing no sculpture, only a few zebra-like markings on a brown ground.

Plaxiphora (Chiton albidus) albidus, Blainville. Type, Ile King (Dict. Sc. Nat., vol. xxxvi., p. 547, 1825). There are six valves in tube marked type, M_3 36a, anterior, posterior, and four median valves. These were disarticulated by Dr. J. Thiele, and, as stated by him, are very bleached and eroded, but one of the valves shows distinct wrinkling, and all show, near margins, growth-lines and the usual, although faded, green and brown dashes or bands.

Plaxiphora (Chiton costatus) costata, Blainville. Type, Port du Roi George (Dict. Sc. Nat., vol. xxxvi., p. 548). The specimens, which are dissected, are also labelled "*Chaetopleura costata*, Bl." This is the usual ribbed and wrinkled form of *Plaxiphora* found in South Australia. The anterior diagonal rib is well defined and a large portion of it smooth; the posterior margin of the median valves is not well defined. The wrinkling is very marked in zigzags. The usual green colour markings are present.

Plaxiphora (Chiton glaucus) glauca, Quoy et Gaim. Type, Van Diemen (Voy. de l'Astrol. Zool., iii., p. 376, t. 74, f. 7-11, 1834); marked in (Quoy or Gaimard's) handwriting as from Van Diemen. There are only four valves, which belong to the smooth form, without wrinkles. I have similar specimens from Tasmania. The shell is a good deal eroded, but there is sufficient to show that, when perfect, it was unwrinkled.

Comment.—Dr. Thiele quite correctly recognized de Blainville's *C. costatus* in the wrinkled form of *Plaxiphora*, ranging from Victoria to Western Australia, which appears to have been described by Sowerby under the name of *P. petholata*. But he concluded that the bleached and eroded specimen described by Blainville under the name of *C. albidus* must be the smooth form described by Quoy et Gaim. under the name of *C. glaucus*. The discovery of defined wrinkling on one of the valves of Blainville's type of *C. albidus* disproves this. I am satisfied that his *albidus* and *costatus* are conspecific, the former being a worn and bleached specimen of the latter. As *albidus* has page priority, it must stand as

the name of the wrinkled shell, and *Plaxiphora costata*, Bl., as a synonym thereof. Whether the whole of the forms of *Plaxiphora* found in Southern and Western Australia are all referable to one very variable species or not, must be left to future investigation. For the present I purpose to include all wrinkled forms from Victoria and Tasmania and westward under the name of *P. albida*, Bl., with *P. conspersa*, Ad. and Ang., as a subspecific name for the extremely sculptured form which has its headquarters at Port Lincoln. The unwrinkled forms I would refer to *P. glauca*, Quoy et Gaim., of which the type is from Tasmania.

Plaxiphora varipilosa, Blainville. Type (no locality). This is a disarticulated specimen showing no sculpture and is very smooth and polished. More rounded (except near the beak, which is raised) than is the case with Australian representatives of this genus. It is decorated with longitudinal brown streaks, but has none of the typical markings that are so characteristic of Australian specimens; it is evidently not an Australian shell.

Cryptoplax montanoi, Rochebrune. Type, in spirit, ls. Soulou, Drs. Montano et Ray (Pilsbry gives locality as Leucon, Borneo), No. 74, 1880 (Bull. Soc. Philom., Paris, 1881-82, p. 1901), is marked "*C. oculatus*, Q. et G." This specimen is well preserved in spirit and is conspecific with a specimen in my own collection which is also marked "*C. oculatus*, Q. et G.," and is from I. Sula. Both these differ from specimens marked "*C. larvæformis*, (Blain.) Burrow, 1815," in that the first three valves are circular and not oval, as is the case in the latter. In all other respects they seem alike. We were not able to find the type of *C. oculatus*, Quoy et Gaim., so cannot say whether these two are conspecific.

Cryptoplax (cryptoconchus) larvæformis, (Blain.) Burrow (Elem. of Conch., pp. 190, 191, t. 28, f. 2, 3, 4, 1915). I saw a card with old label, "I. O. Lisse. *Ch. laevis*, Lam. Habite les Mers de la Nouvelle-Holland," determined later as *C. larvæformis*, Burrow. This specimen is similar to others in the same collection from New Caledonia and Tonga Tabu. I have noted that all these resemble my shell and Rochebrune's *montanoi*, except that in them valves 1 and 2 only are round oval, whereas in the latter the three first valves are almost circular. The girdle spicules of all are very similar.

Cryptoplax lamarchi, Rochebrune, from New Caledonia, marked "co-type." This specimen appears to correspond with *C. larvæformis*, Burrow, in that the anterior valve is oval and not circular, as in *mondanoi*, Rochebr.

Cryptoplax torresianus, Rochebrune. Type (Bull. Soc. Philom., Paris, 1881-82, p. 195, 1881). The following are copied from Rochebrune's MS. notes:—"Chitonellus striatus (Rv., C. Icon., pl. 1, sp. 4), long. O. 060, lat. O. 004, M.M., non *C. striatus*, Lam. Hab., detroit de Torres. Mus., Paris." I compared this type with my shell from Sydney and found them conspecific; my largest specimen is a counterpart of the type, which is numbered N. 13, 8.

Cryptoplax (Chitonellus) laevis, Lamarck. Type (de Lamarck animaux sans vertebres, vol. 7, Mollusques). Lab. de Malacologie, K. 82. Oscabrelle lisse, De Blainville, Malac., pl. 87, f. 5. Hab. les Mers de la Nouvelle-Hollandiae. Peron et Lesueur. I saw type marked as such in Rochebrune's handwriting. The same specimen is marked "type of *Cryptoplax (Chitonellus) lamarcki*, Rochebr.," and the card is marked "Peron et Lesueur, N. 153," and agrees with figure, pl. 87, fig. 5, Blain., Manu. de Malacologie. This type shell measures 49×12 mm., and, as just stated, corresponds with the figure. Nearly the whole of the shell is eroded and the girdle is denuded of spicules, except on that portion commencing opposite valve 7, where the spicules are fortunately still in evidence. These spicules are very peculiar, being very widely spaced, short, blunt and rounded, quite distinct from any species I have seen from either the south or the east coast of Australia; neither does it agree with the specimen of *Cryptoplax* I collected at Rottneest, in Western Australia. On the other hand, the small specimen I collected at Yallingup, in that State, in October, 1920, and provisionally referred to as *C. hartmeyer*i, Thiele—see my paper (Trans. Roy. Soc. S. Austr., vol. xlv., 1921)—may be a juvenile of this species. Should this identification ultimately prove correct, *C. hartmeyer*i, Thiele (the type of which I have never seen), will probably be proved to be conspecific, and name will be a synonym of *C. laevis*, Lam.

Cryptoplax (Chitonellus) striatus, Lamarck. Type (An. S. Vert., vi., p. 317, 1819). The type specimen is marked in Lamarck's handwriting, "Oscabrelle striée, *Chitonellus striatus*. Ile aux Kangaroo." The type measures 46×10 mm.; valves 5, 6, and 7 would be slightly spaced if the specimen had been carefully dried. The sculpture is similar to the common South Australian shell, and although very few spicules are left on the girdle, those that remain correspond with the South Australian species, which is quite natural, as Kangaroo Island, in that State, is the type locality.

Comments.—The rediscovery of Lamarck's two lost types is due to the very careful search made by Dr. Lamy. I was told on arrival that these types were not in the Museum in

Paris, and were probably in Geneva. But on calling attention to the reference in the original description to their deposition in Paris, Dr. Lamy turned up Rochebrune's MS. and found that when those notes were written Lamarck's types were still in Paris. A further search was at last rewarded with their recovery. Pilsbry's figures in pls. 9 and 11, Man. Con., vol. xv., are, I have no doubt, drawn from New South Wales specimens. I agree with Mr. Tom Iredale that these northern shells are a distinct species, and not Lamarck's *striatus*. As a result of the foregoing investigation we are able to recognize:—

(1) *Cryptoplax laevis*, Lamarck = *C. lamarcki*, Rochebr.; probably = *C. hartmeyeri*, Thiele, and is only known for Western Australia.

(2) *Cryptoplax striatus*, Lamarck, found in Victoria, Tasmania, South Australia, and Western Australia.

(3) *Cryptoplax torresianus*, Rochebrune. Found from Port Jackson northwards to Torres Straits.

(4) *Cryptoplax gunni*, Reeve. Occurring in South Australia and having probably a range of habitat coextensive with *C. striatus*, Lam., from which species it is easily distinguished by its dense, very short, and slender spicules.

Three further species are all said to occur in Australian waters:—*C. oculatus*, Quoy et Gaim.; *C. burrowi*, Smith; *C. michaelsoni*, Thiele. The two first in the tropical waters of Queensland, and the latter in Shark Bay, Western Australia.

Acanthochiton sueurii, Blainville. Type (Dict. Sc. Nat., xxxvi., p. 553, Blainville). There are two specimens with original label "Port Roi George." They are undoubtedly the shell we have known as *Acanthochiton asbestoides*, Smith. The better of the two is similar to a pale specimen I collected at Port Lincoln, in South Australia.

Acanthochiton jacundus, Rochebrune. Type (Bull. Soc. Philom., 1881-82, p. 194). There are a number of specimens in spirit which are conspecific with preceding species, all much worn.

Acanthochiton violaceus, Quoy et Gaim. Type (Voy. de l'Astrol., iii., p. 403, t. 73, f. 15-20), New Zealand. These are similar to specimens in my own collection from Doubtless Bay, New Zealand.

Acanthochiton violaceus, var. *papillo*. Type. On another card marked "Quoy et Gaimard, 1883, N.Z.," is a dissected specimen with anterior valve missing. All valves smooth and of peculiar shape. I am rather doubtful whether this is referable to the same species. It is referred to in Voy. de l'Astrolabe at top of page 520 under the name *papillo*.

Cryptoconchus (Acanthochites) monticularis, Quoy et Gaim. Type from New Zealand (Voy. de l'Astrol., p. 106, t. 73, f. 30-35, 1834). This is undoubtedly conspecific with *Cryptoconchus porosus*, Burrow (Elem. Conch., p. 189, t. 28, f. 1, 1815).

Cryptoconchus stewartianus, Rochebrune. Type (Bull. Soc. Philom., Paris, p. 194, 1881-82). Type is in spirit and is evidently conspecific with preceding species.

Acanthochiton zelandicus, Quoy et Gaimard. Type, in spirit (Zool. Voy. de l'Astrol., iii., p. 400, t. 73, f. 5-8, 1834), marked on label "M. Quoy et Gaimard, 1833." The shell is decorated with flat, rounded pustules. The dorsal area is partly smooth, but the rest of the area shows longitudinal striae. They are similar to shells in my own collection from Auckland Harbour.

Acanthochiton (Loboplax) stewartiana, Thiele. Type is in spirit and marked "Collected by Filhol, Ile Stewart." The following are my notes:—Anterior valve decorated with five well-raised rays formed of largish, elongate, flat pustules. Median valves with a diagonal fold and decorated with rows of diagonally-placed, raised, oval, flat pustules; much like *A. granostriatus*, Pilsbry. The posterior valve is very distinct, dorsal area pinnatifid, in the front of mucro pustules are similar in character to those of the median valves. Mucro raised, posterior and distinct. Area behind mucro flat to concave. A small specimen in my collection, from Wellington, is similar in sculpture but has not the strong rays in the anterior valve.

Note.—Several other *Acanthochitons* in the collection in Paris will be dealt with later.

Rhyssoplax (Chiton) canaliculatus, Quoy et Gaimard. Type (Voy. de l'Astrol. Zool., iii., p. 394; Atlas, t. 75, f. 37-42, 1834), marked "Voy. Astrol., 1829, New Zealand." There are no scales left on girdle of type. The sculpture is similar to specimens so named in my collection.

Sypharochiton (Chiton) pellis-serpentis, Quoy et Gaimard. Type, in spirit (Voy. de l'Astrol. Zool. iii., Moll., p. 381, t. 741, f. 17-22, 1834); label in handwriting of de Blainville reads, "Oscabrimon a Serpent, pl. 741, fig. 17-22, New Zealand, Astrolobe." There are three specimens of this well-known shell. In all there is very little sculpture in the median areas, but the lateral areas are quite normal. One of the three is quite as carinated as *S. sinclairi*, Gray.

Liolophura (Chiton) hirtosus, (Peron MS.) Blainville. Type (Dict. Sci. Nat., xxxvi., p. 546. 1826), Dr. J. Thiele (Fauna S.W. Austr., p. 399, 1911), Dupuis (Ex. Bull. Mus.

Hist. Nat., 1917, No. 7, p. 1, 2), and *l.c.*, p. 7, 1918. These latter point out that in the Paris Museum are two specimens collected by Peron; the one marked type, which I call (*a*), is conspecific with *Liolophura* (*Chiton*) *georgiana*, Quoy et Gaim. The other, which I call (*b*), is marked co-type, was identified by Dr. Thiele as conspecific with *Acanthopleura spiniger*, Sow. The following are my notes on the type specimen, which is disarticulated. The card is marked "*Chiton hirtosus*, Peron=*Chiton georgianus*, Quoy et Gaimard, Ile King"; and has labels at the back which read, "See pg. 533, Bull. du Mus. d'Histoire Nat. (in Blainville's handwriting), *hirtosus*, Bl."; in Peron's handwriting, "*hirtosus*, Ile King"; and in Quoy or Gaimard's handwriting, "*Aculiatum*."

The large median valve measures laterally 30 mm. The sculpture is almost entirely eroded, broken and beaded growth-lines are slightly visible in the lateral areas, and what little sculpture remains on the rest of the valve consists of concentric ridges. The anterior valve is slit and propped, but the insertion plate is absent or modified in the manner characteristic of *L. georgiana*, Quoy et Gaim.; the girdle scales are also similar to that species. There is a note on the back of the card, "Dr. Thiele det. this is undoubtedly Quoy et Gaimard's shell." In this determination I fully concur. I have no doubt the specimen came from Port du Roi George, and not from Ile King, as marked on card; but until a careful search for *Chitons* be made on that island, the locality from which the type came must remain an open question.

Specimen (*b*).

The card is marked "Co-type, *Chiton hirtosus*, (Peron) Blainville. M. M. Peron et Lesueur, 1803, I. King, M^s 886 = *Acanthopleura spinigera*, Sow." On back it has the following notes, "Ile King, *Chiton hirtosus*, Peron, 233," in Peron's handwriting; two words that look like "Lepus grand, *A. aculeata*, L., I. King," in Lamarck's handwriting, and "*Acanthopleura spinigera*, Sow., Thiele det." This specimen is similar in sculpture and spicules to specimens in my collection from Port Darwin which I have considered are referable to Blainville's *Chiton gemmata*. The shell is a good deal curled but is in good preservation and measures 51 × 38 mm. This could not have come from Ile King, but possibly Baudin sailed north as far as Shark Bay, where this *Acanthopleura* occurs. Is it not possible that this is the missing type of Blainville's *Chiton gemmatus*? Up to the present I have not been able to refer to the original description of that species.

Specimen (c).

On another card is a specimen, which I am calling (c), marked "*Liolophura hirtosa*, Peron; collected by Peron et Lesueur, 1803." In Dr. Lamy's opinion this specimen is the black variety described by Blainville, 1825, as variety V. of his *Chiton gemmatus*. The shell shows very little sculpture, the dorsal area is eroded, but the rest of the shell is well preserved. There are very deep growth-lines and ridges, which are only subpustulose in the lateral areas. It is curled and measures 30×23 mm. This spm. = *Liolophura hirtosa*, (Peron) Blainville.

Note.—Blainville states that his variety V. was in the collection of the Paris Museum, but that the type of normal *C. gemmatus* was in his own collection.

Specimen card.

This has two specimens mounted on it; they are marked "*L. georgiana*, Q. et G., Port du Roi George." These are not that species, but are the Sydney shell *L. gaimardi*, Blainville. There are sufficient of the girdle spicules left to assure the correctness of the determination.

Specimen (e).

This is in spirit and marked "*Acanthopleura quatrefagesi*, Rochebrune (Rochebr., Bull. Soc. Philom., 1880-81, p. 117; Jour. de Conch., 1881, p. 44)." This is *Liolophura hirtosa*, (Peron) Blainville, and very probably was one of Blainville's original shells.

Liolophura (Chiton) georgiana, Quoy et Gaimard. Type (Voy. de l'Astrol. Zool., iii., p. 379, t. 75, f. 25-30, 1833), Port du Roi George. There are four specimens quite typical of this common Western Australian shell; as Peron's name, *hirtosus*, was published by Blainville in 1825, that name replaces that of Quoy et Gaimard. There are old labels attached reading, "*Chiton magellanicus*, Chem.; *Chiton georgianus*, Q. et G. Type figured. Port du Roi George, New Holland, Expedition d'Urville, 1824, the figure in Voy. Astrol., pl. 75, figs. 25-30, agrees with these specimens."

Liolophura (Chiton) gaimardi, Blainville (Dict. Sci. Nat., xxxvi., p. 546, 1825). The type was collected at Port Jackson by Quoy and Gaimard and was preserved in spirit. This bottle contains two specimens with a more recent label, "*Acanthopleura magellanica*, Chem." These may be the types, as the type is referred to as being in the Paris Museum in the catalogue of that Museum, dated 1838.

Onithochiton (Chiton) undulatus, Quoy et Gaimard. Type (Zool. de l'Astrol., p. 393, t. 75, f. 19-24, New Zealand). The label is in the handwriting of Quoy or Gaimard, "Pl. 75, figs. 19-24, 1833." This corresponds with specimens in my own collection from Doubtless Bay, New Zealand, except that in the type the diagonal rib is almost smooth, showing little granulation. The shells are bleached.

Onithochiton astrolabei, Rochebrune. Type (Bull. Soc. Philom., Paris, 1880-81, p. 120), New Zealand, Quoy et Gaimard, 1829. This shell has spaced granules in the diagonal rib similar to my Doubtless Bay specimens, and is only a slight variation from the type of Quoy and Gaimard's *undulatus*.

Onithochiton neglectus, Rochebrune. Type (Bull. Philom., Paris, 1880-81, p. 120), Wellington, New Zealand, Quoy et Gaimard. This is an exceptionally granulose shell, probably a variety of Quoy et Gaimard's *undulatus*, but as that name was preoccupied Iredale substituted the name *neglectus*, Rochebr. (Trans. N. Z'd. Inst., vol. xlvii., 1914).

Onithochiton lyelli, Sow. There is in spirit a rather worn specimen from Ile Pitcairn. This seems conspecific with *O. quercinus*, Gould.

Gymnoplax adelaidensis, Quoy et Gaimard, 1829. This is an East Indian shell from Amboine. It has scales like a *Haploplax* and resembles members of that genus in general shape, but there the resemblance ends, the valves being very strongly sculptured. I have no reference to its description.
